

ABSTRACT

A linear interferometric sensor system in which the light output from the interferometric sensor is optically bandpass filtered before conversion to an electrical signal by an adjustable diffraction grating and the center wavelength of the adjustable diffraction grating is controlled by a feedback circuit responsive to the steady state component of the electrical signal corresponding to the filtered sensor return. The adjustable may comprise a diffraction grating a diffraction grating mounted on a motor driven rotary stage. The invention is particularly useful in self calibrating interferometric/intensity-based sensor configuration, but is also applicable in a wide variety of linear interferometric sensor configurations.